Bluetooth Controlled BBOT involves the operation of Robots in accordance with the signals sent from a smart phone using an Android Application and Bluetooth Communication.

This is a differential steering robot that can be controlled from an Android phone via Bluetooth. The robot's "brain" is AT89c51 Microcontroller. The robot uses a HC-05 Bluetooth module for communication with the Android phone. A custom Android app, created with this BBOT essentially acts as a remote control, sending commands to the Microcontroller that tell the robot to move forward, reverse, stop or rotate.

Kit Includes:

- Microcontroller based Assembled PCB
- BO Motor 2 nos
- Castor wheel 1 no
- BO wheel 2 nos
- Bluetooth Module – 1 no
- BO Motor Clamp – 2 nos
- 9 V battery – 1 no
- Battery connector – 1 no
- AT89c51 Microcontroller pre programmed – 1 no
- L293D Motor Driver IC – 1 no
- Screw driver - 1no
- Nut and bold – 1 packet
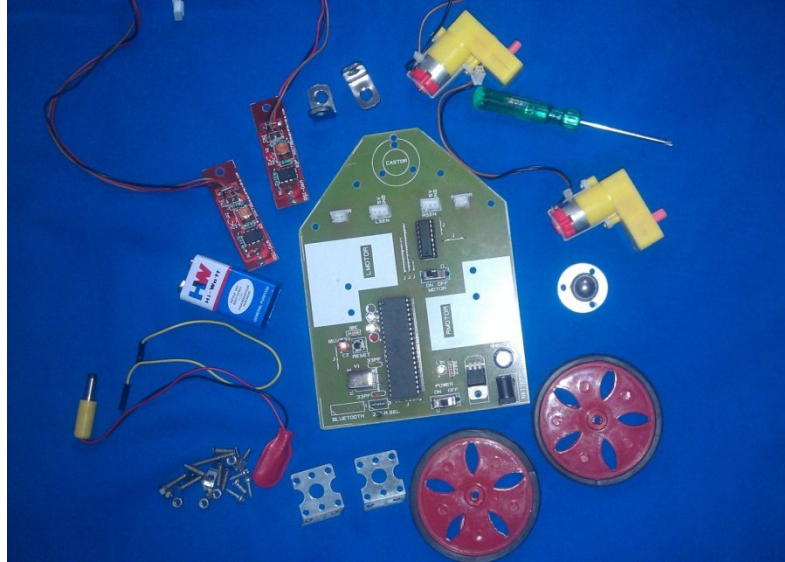
Working Principle:

The communication between the phone and the Microcontroller board is very basic at the moment. When you press a button on the phone, it sends a byte over the Bluetooth connection (currently the numbers 0 to 5 are used). The Microcontroller sketch reads the data on the serial port and acts based on the command (0 is stop, 1 is move forward etc.).
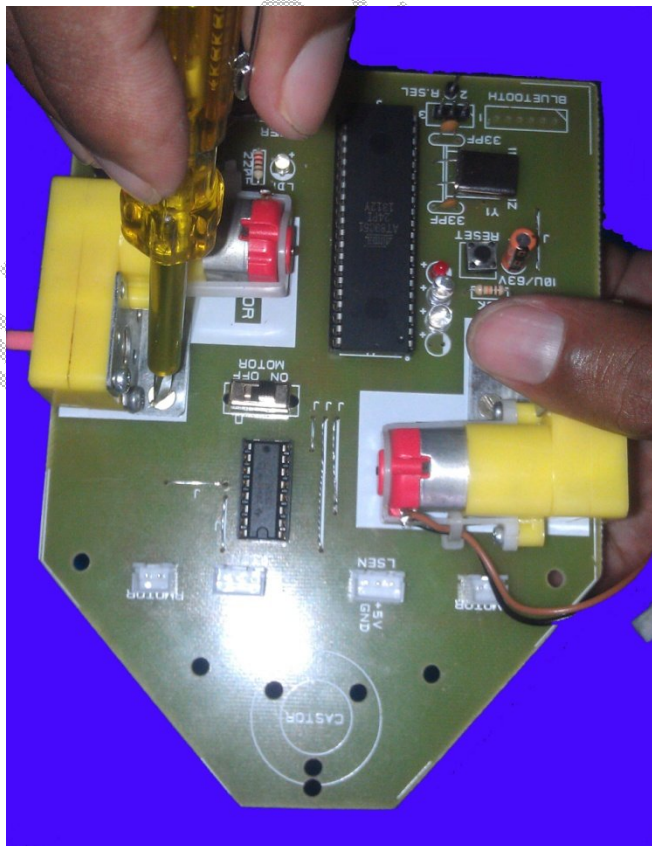
Construction:
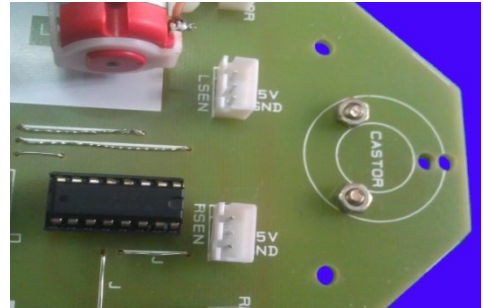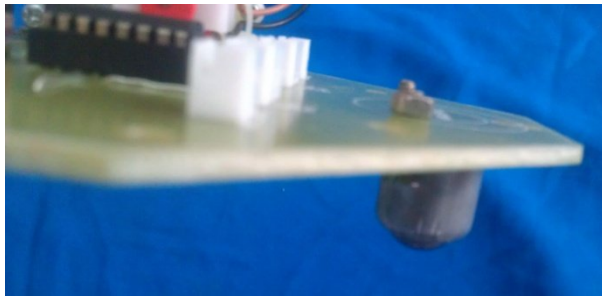
Step 1:
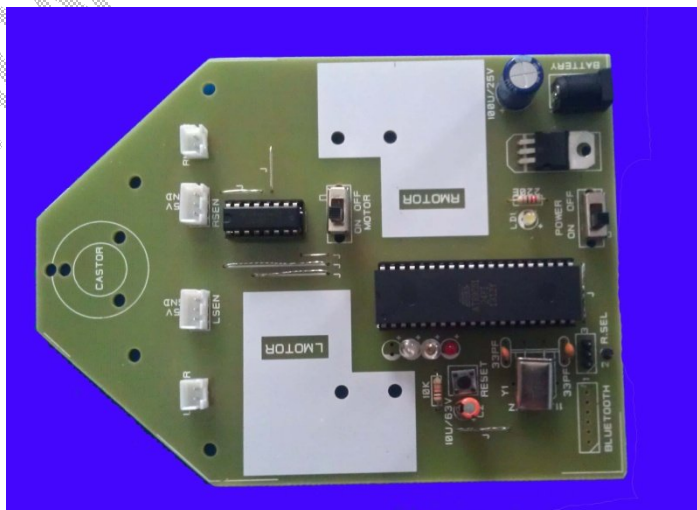
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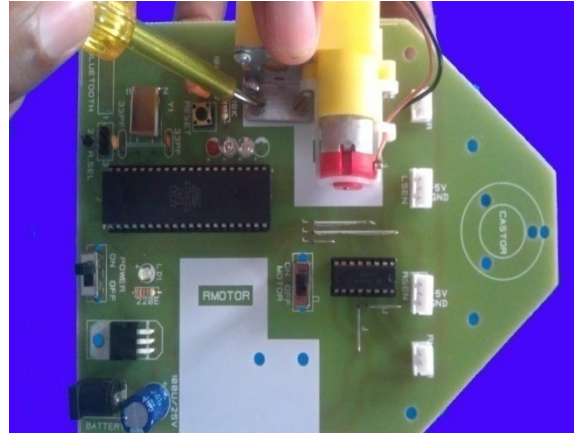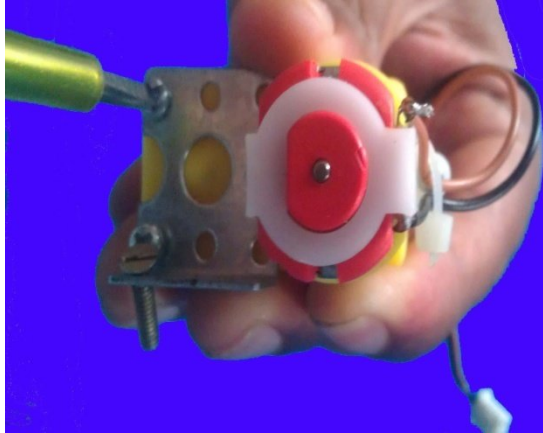
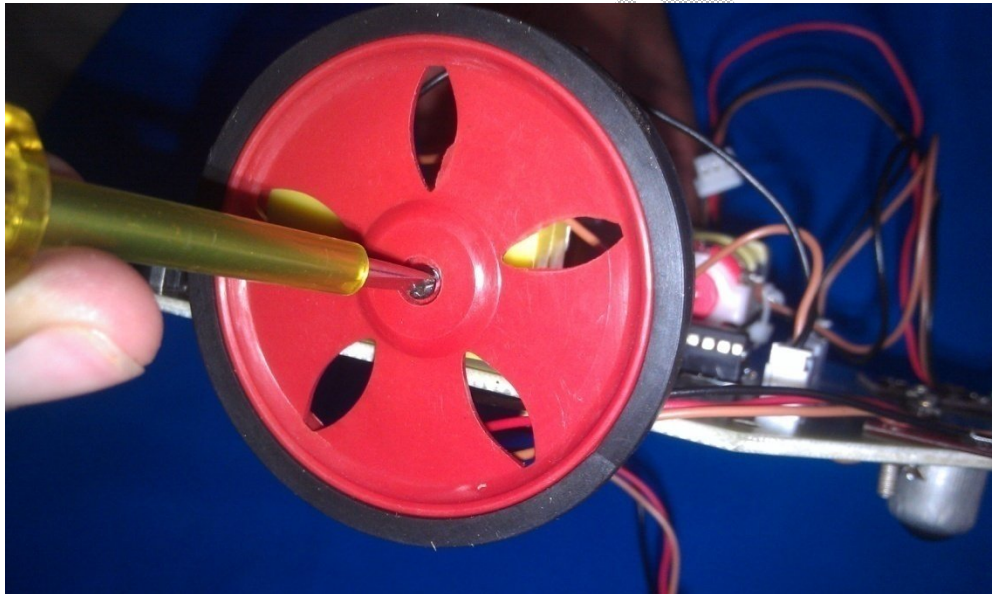Connect BO motors with BO Clamp

Step 3:

Now fix both motors (Left and Right) in the PCB

Step 4:

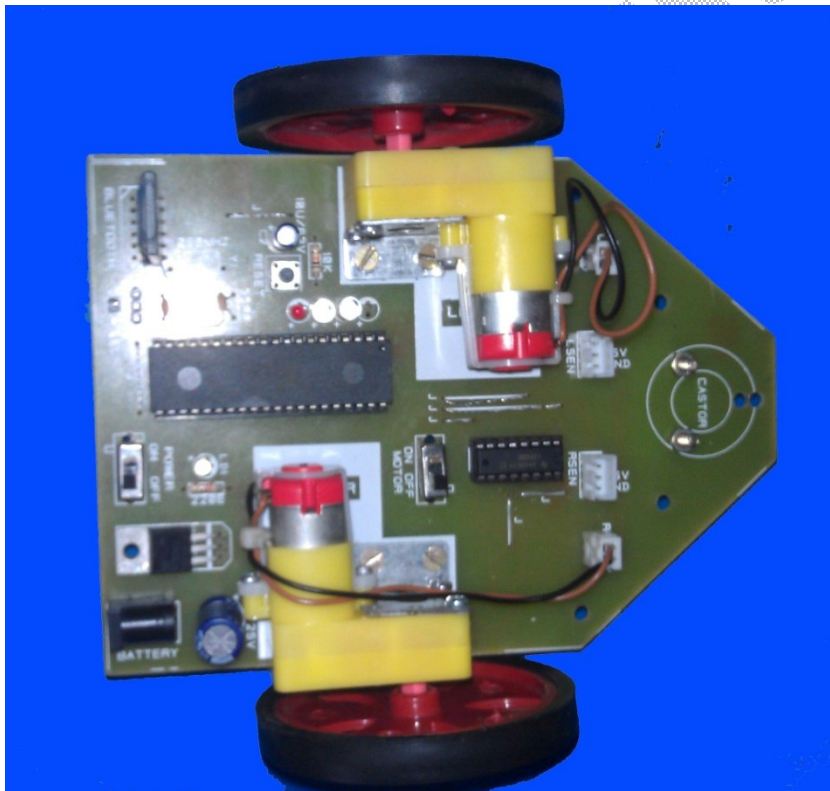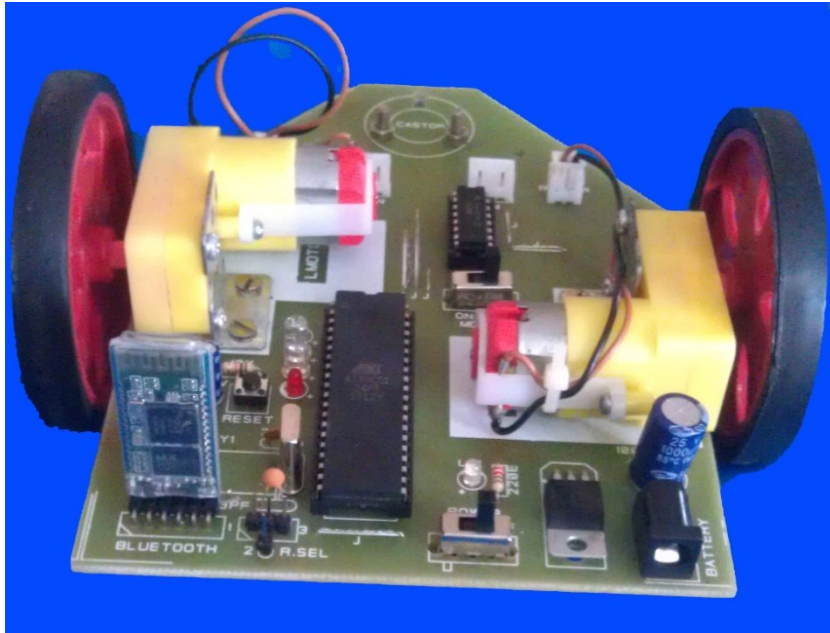Connect Castor wheel at the front of BBOT facing downwards

Step 5:

Connect BO wheels to the corresponding motor

Final Result:

Checking BBOT:

Steps:

- Install Blue Rower APK (Comes along with kit) in your Android mobile phone
- Connect the wiring, power up, while the device is not connected, the Bluetooth module board has a white LED flashing fast
- At phone side, search Bluetooth device.
- Found name called "HC-05" device
- Connect it, and password is "**1234**"
- While connection is ok, you can see the LED become flashing slow
- Press up and Down Arrow to control Robot